

-1- Pressure limiting device for the hydraulic braking circuit of a vehicle **wherein** it comprises a leaktight housing (1) hydraulically connected between the braking components of the front wheel or wheels and the back wheel or wheels, said housing (1) having means (2) and arrangements capable of allowing the passage of hydraulic fluid in the braking components of the back wheels until an adjustable set pressure is reached and then of releasing this pressure which decreases in the said braking components of the back wheel or wheels in proportion to a rise in pressure in the braking components of the front wheel or wheels.

-2- Apparatus as claimed in claim 1 **wherein** the means consist of a hollow cylindrical body (2) having at each end a piston head (2a) and (2b) that slides in a leaktight manner inside a bore (1c) in the housing (1), the said body (2) having arrangements allowing the free passage of the fluid from the braking components of the front wheels to the braking components of the back wheels and, when the set pressure is reached displacing it to prevent the fluid passing into the braking components of the back wheel or wheels.

-3- Apparatus as claimed in claim 1 or claim 2 **wherein** the arrangements on the body (2) consist of a coaxial bore (2c) that opens out of one of the piston heads (2b) on the side where the hydraulic circuit of the braking components of the back wheel or wheels is connected, the said bore (2c), which communicates with the fluid coming from the braking components of the front wheels, being fitted with a ball (4) controlled by a spring (5) that co-operates with a coaxial finger (6a) of a leaktight closure component (6) fitted in the bore (1c) in the housing (1)

such that, depending on the set pressure, the fluid can flow freely or the entire body-piston assembly (2) can move.

5 -4- Apparatus as claimed in claim 2 **wherein** the fluid coming from the braking components of the front wheel or wheels is routed into the bore (1c) in the housing (1) between the two piston heads (2a) and (2b) that define a ring-shaped chamber and is sent to the braking components of the back wheel or wheels between the end of the piston head (2b) and the closure component (6).

10

 -5- Apparatus as claimed in claims 1, 2, 3 and 4 **wherein** the surface of piston head (2b) located on the side of the closure component (6) is fitted with pins (2b1) capable of bearing on the said closure component (6) when the ball (4) abuts against the finger (6a) to allow the
15 free passage of the fluid.

 -6- Apparatus as claimed in any of claims 1, 2, 3, 4 and 5 **wherein** the body-piston assembly (2) is controlled by an elastic component (3) fitted inside the bore (1c) in the housing (1) and capable
20 of exercising pressure to hold the said body (2) against the closure component (6) allowing the free passage of the fluid, the said elastic component (3) being pre-stressed to a value matching the set pressure.

 -7- Apparatus as claimed in any of claims 1, 2, 3, 4, 5 and 6
25 **wherein** the closure component (6) is fitted into the bore (1c) in the housing (1) with the capacity to adjust its translation movement in order to make it possible to adjust the pre-stress on the elastic component (3), thereby concomitantly modifying the set pressure.

-8- Apparatus as claimed in any of claims 1, 2, 3, 4, 5, 6 and 7
wherein piston head (2a), co-operating with the pre-stressed elastic
component (3), has a larger diameter than the other head (2b), the bore
(1c) in the housing defining two coaxial internal bearings (1c1) – (1c2)
5 of different, corresponding diameters.

-9- Apparatus as claimed in any of claims 1, 2, 3, 4, 5, 6 and 7
wherein piston head (2a), co-operating with the pre-stressed elastic
component (3), has a smaller diameter than that of the other head (2b),
10 the bore (1c) in the housing (1) defining two coaxial internal bearings
(1c1) – (1c2) of different, corresponding diameters.

-10- Apparatus as claimed in claim 1 **wherein** piston head (2a),
co-operating with the pre-stressed elastic component, has the same
15 diameter as that of the other head (2b), the bore (1c) in the housing (1)
defining one internal bearing of a corresponding diameter.

20

25